

CLAIMS

1. A latching mechanism for assembly of a housing of an electronic device, comprising:
- a latch element; and
- 5 a receiving element contained within the housing, wherein the receiving element comprises:
- a recess for engaging the latch element, and
- at least one audio port for providing an audio channel for the electronic device.
- 10
2. The latching mechanism as defined in claim 1, further comprising:
- a gap formed between the latch element and the receiving element, wherein the audio channel further comprises the gap.
- 15
3. The latching mechanism as defined in claim 1, wherein the latch element is rotatably coupled to the recess, and further wherein the latch element rotation includes a first orientation for disengaging the latch element from the housing and a second orientation for engaging the latch element
- 20 within the housing.
4. The latching mechanism as defined in claim 3, wherein the latch element comprises a protrusion, wherein the recess further comprises a

similarly-shaped opening, and further wherein the protrusion aligns with the similarly-shaped opening in the second orientation.

5 5. The latching mechanism as defined in claim 4, wherein the protrusion misaligns with the similarly-shaped opening in the first orientation.

6. The latching mechanism as defined in claim 1, further comprising:

10 a secondary latch element, wherein at least a portion of the housing is mechanically coupled between the latch element and the secondary latch element, wherein the secondary latch element comprises at least one secondary latch element audio port aligned with the at least one audio port, and further wherein the audio channel further comprises the at least one secondary latch element audio port.

15

7. The latching mechanism as defined in claim 6, wherein the electronic device further comprises:

20 an audio element, wherein at least a portion of the secondary latch element is mechanically coupled between the audio element and at least a portion of the housing.

8. The latching mechanism as defined in claim 8, wherein the audio element generates an audio output, and further wherein the audio output is transmitted through the audio channel.

9. The latching mechanism as defined in claim 7, wherein the audio element receives an audio input through the audio channel.

10. The latching mechanism as defined in claim 6, wherein the
5 secondary latch element comprises:

an audio plate coupled between the latch element and at least a portion of the housing, wherein the audio plate includes at least one audio plate audio port, wherein the at least one secondary latch element audio port comprises the at least one audio plate audio port.

10

11. The latching mechanism as defined in claim 10, wherein the secondary latch element further comprises:

a seal coupled between the audio element and at least a portion of the housing, wherein the seal includes at least one seal audio port aligned
15 with the at least one audio plate audio port, and wherein the at least one secondary latch element audio port further comprises the at least one seal audio port.

12. The latching mechanism as defined in claim 1, wherein the
20 housing further comprises:

a fixed housing portion; and

a removable housing portion, wherein the receiving element is contained within the removable housing portion, and further wherein the

removable housing portion is assembled to the fixed housing portion when the latch element is engaged within the housing.

13. The latching mechanism as defined in claim 12, wherein the
5 electronic device further comprises a keypad, and further wherein the keypad is assembled between the fixed housing portion and the removable housing portion and the removable housing portion when the latch element is engaged within the housing.

14. An electronic device, comprising:

a housing, comprising:

a fixed housing portion;

5 a removable housing portion having at least one audio port;

a latching mechanism for assembling the removable housing portion to the fixed housing portion, wherein the latch mechanism comprises:

10 a latch element rotatably coupled to the removable housing portion, wherein the latch element rotation includes an orientation for engaging the latch element to assemble the removable housing portion to the fixed housing portion; and

15 an audio channel, wherein the audio channel is formed when the removable housing portion is assembled to the fixed housing portion.

15. The electronic device as defined in claim 14, wherein the latch element rotation further includes another orientation for disengaging the latch
20 element to disassemble the removable housing portion from the fixed housing portion.

16. The electronic device as defined in claim 14, wherein the removable housing portion includes a recess, wherein a gap is formed

between the latch element and the recess when the removable housing portion is assembled to the fixed housing portion, and further wherein the audio channel comprises the gap.

- 5 17. The electronic device of claim 14, wherein the latching mechanism further comprises:

 a secondary latch element, wherein the housing is mechanically coupled between the latch element and at least a portion of the secondary latch element, wherein the secondary latch element comprises at least one
10 secondary latch element audio port aligned with the at least one audio port, and further wherein the audio channel further comprises the at least one secondary latch element audio port.

18. The electronic device as defined in claim 14, a keypad, wherein
15 the keypad is assembled between the fixed housing portion and the removable housing portion.

19. A method of operating a latching mechanism, comprising the steps of:

- mechanically coupling a latch element to a housing;
- 5 creating an audio channel by engaging the latch element within the housing; and
- porting audio through the audio channel.

20. The method of operating a latching mechanism as defined in claim 19, wherein the mechanically coupling step includes forming a gap between the latch element and the housing, and further wherein the audio channel created in the creating step comprises the gap.

21. The method of operating a latching mechanism as defined in claim 19, wherein engaging of the latch element within the housing comprises rotating the latch element to an orientation.

22. The method of operating a latching mechanism as defined in claim 21, wherein the housing comprises a fixed housing portion mechanically to a removable housing portion, the method further comprising the step of:
20 assembling a keypad between the fixed housing portion and the removable housing portion in response to the engaging of the latch element within the housing.

23. The method of operating a latching mechanism as defined in claim 21, further comprising the step of:

disengaging the latch element from the housing by rotating the latch element to another orientation.

5

24. The method of operating a latching mechanism as defined in claim 23, wherein the housing comprises a fixed housing portion mechanically to a removable housing portion, the method further comprising the step of:

disassembling the removable housing portion from the fixed housing portion in response to the disengaging step.

10

25. The method of operating a latching mechanism as defined in claim 19, further comprising the step of:

mechanically coupling at least a portion of the housing between the latch element and at least a portion of a secondary latch element,

15

wherein the creating of the audio channel step further comprises aligning an audio port of the housing with a secondary latch element audio port of the secondary latch element.

26. The method of operating a latching mechanism as defined in claim 25, further comprising the step of:

20

mechanically coupling an audio element to the secondary latch element.

27. The method of operating a latching mechanism as defined in claim 26, further comprising the steps of:

generating an audio output by the audio element; and
transmitting the audio output through the audio channel.

5

28. The method of operating a latching mechanism as defined in claim 26, further comprising the steps of:

receiving an audio input; and
transferring the audio input to the audio element through the

10 audio channel.

29. A method of operating a latching mechanism within an electronic device having a housing including a fixed housing portion and a removable housing portion, the method comprising the steps of:

5 assembling the removable housing portion to the fixed housing portion by:

mechanically coupling a latch element to the removable housing portion;

engaging the latch element within a recess of the fixed housing portion; and

10

forming an audio channel by aligning at least one audio port contained within the fixed housing with an audio port within the removable housing portion when the latch element is engaged.